Amendments to the Claims:

1-2.   (Cancelled)

3.   (Previously Presented) The method as claimed in claim 20, further including:

filling the histogram with measurement data from a time window advancing in real time with selectable fixed length.

4.   (Previously Presented) The method as claimed in claim 20, wherein, during the conversion, the computer generates aids for the retrospective analysis of the histogram in the form of selectable functions that can be displayed on a viewing screen and outputs them together with the converted data combined as picture signals.

5-11.   (Cancelled)

12.   (Currently Amended)   A medical monitoring device, comprising:

a display device for automatically displaying medical measurement data; and

a computer programmed to perform the steps of:

receiving medical measurement data from a sensor device;

in real time, converting the medical measurement data into a histogram including a series of medical measurement values;

combining the series of medical measurement values of the histogram into a cumulative curve;

controlling the display device to display the cumulative curve superimposed on the histogram, the cumulative curve and the histogram sharing a common scale.

13. (Cancelled)

14. (Currently Amended) The medical monitoring device as claimed in ~~claim 28~~ claim 26, further comprising the computer further being programmed for generating retrospective analysis aids including at least one of:

an inop bin displaying times of invalid or out of action measurement data;

a deviation readout;

a direction-change indicator;

a histogram snapshot and trends aid; and

a combination of a plurality of histograms.

15. (Cancelled)

16. ((Currently Amended) The medical monitoring device as claimed in ~~claim 28~~ claim 26, further comprising an alarm indicator that is triggered when a measurement of histogram data is measured above or below a lower or upper alarm limit level.

17. (Currently Amended) The medical monitoring device as claimed in ~~claim 28~~ claim 26, wherein the histogram data is binned into histogram bins, the histogram bin size being definable by the user.

18. (Currently Amended) The medical monitoring device as claimed in ~~claim 28~~ claim 26, wherein the display further displays real-time signal patterns of the medical measurement data concurrently with the superimposed histogram values and cumulative curve.

19. (Cancelled)

20.   (Currently Amended) A method of automatically displaying medical measurement data in which a computer:

receives the medical measurement data,

automatically converts in real time the received measurement data into data for a histogram including updating the histogram in real time,

during the conversion, generates a cumulative curve indicative of the medical measurement data, the cumulative curve being cumulative of the series of histogram values, and

displays the histogram with the cumulative curve superimposed, the histogram and the cumulative curve having common axes and [[a]] common scales.

21.   (Previously Presented) The method as claimed in claim 4, wherein the retrospective analysis aids include at least one of:

a cumulative curve cursor for determining a percentage of time that histogram values are below a current cumulative cursor position;

range-selection cursors for determining a percentage of time that histogram values are within limits defined by the range-selection cursors;

a variability/stability readout that provides information about variability of the measurement data; and

a deviation and direction-change readout that shows deviation from a mean histogram value and a direction of measurement data change.

22.   (Currently Amended) A non-transitory computer readable medium storing a computer program for controlling a computer to perform the method of:

receiving medical measurement data;

converting in real time the received measurement data into data for a histogram including a continuously updated series of histogram values;

during the conversion, generating a cumulative curve indicative of the medical measurement data, the cumulative curve being cumulative of the series of histogram values; and,

outputting the cumulative curve superimposed on the histogram <u>with common axes and scales,</u> as picture signals.

23.   (Cancelled)

24.   (Currently Amended) The medical monitoring device as claimed in claim 12, wherein the histogram and the cumulative curve are displayed with common axes ~~and scales~~.

25.   (Currently Amended) The medical monitoring device as claimed in ~~claim 28~~ claim 26, wherein the histogram data includes a series of medical measurement values and the cumulative curve includes a sum of the medical measurement values.

26.   (Currently Amended) The medical monitoring device as claimed in claim 28, wherein the histogram and the cumulative curve are displayed superimposed with common ~~axes and~~ scales.

27.   (Previously Presented) The method as set forth in claim 20, further including:

displaying the histogram values as histogram columns and the cumulative curve is displayed as a curve superimposed on the histogram columns.

28.   (Currently Amended) A medical monitoring device comprising:

computer programmed for:

receiving medical measurement data,

automatically converting the medical measurement data into histogram data as the computer receives the medical measurement data,

generating a cumulative curve as the medical measurement data is received; and

a display device controlled to display the cumulative curve superimposed on the histogram data as the medical measurement data is received, the cumulative curve and the histogram data sharing common axes.